

## Claims

[c1] What is claimed is:

1.A photolithography system used for a semiconductor process, comprising:  
a light source;  
a lens set; and  
a shutter device having a variable opening area and locating between the light source and the lens set.

[c2] 2.The photolithography system of claim 1 wherein the shutter device is comprised of a plurality of triple-blade shutters.

[c3] 3.The photolithography system of claim 2 wherein the shutter device utilizes a step motor to adjust relative positions of the triple-blade shutters.

[c4] 4.The photolithography system of claim 1 wherein size of the variable opening area is decided in accordance with intensity of the light source.

[c5] 5.The photolithography system of claim 1 wherein size of the variable opening area is decided in accordance with a dose required in manufacturing process.

- [c6] 6.A photolithography system used for a semiconductor process, comprising:
  - a light source;
  - a lens set; and
  - a shutter device comprising a plurality of triple-blade shutters and locating between the light source and the lens set.
- [c7] 7.The photolithography system of claim 6 wherein the shutter device utilizes a step motor to adjust relative positions of the triple-blade shutters.
- [c8] 8.The photolithography system of claim 6 wherein the shutter device has a variable opening area, and size of the variable opening area is decided in accordance with intensity of the light source.
- [c9] 9.The photolithography system of claim 6 wherein the shutter device has a variable opening area, and size of the variable opening area is decided in accordance with a dose required in manufacturing process.
- [c10] 10.A photolithography method, at least comprising:
  - providing a shutter device having a variable opening area in a photolithograph system;
  - adjusting size of the variable opening area in accordance with a dose of an photolithography process; and

performing the photolithography process.

- [c11] 11.The photolithography method of claim 10 wherein the shutter device at least comprises a first triple-blade shutter and a second triple-blade shutter, and the first and second triple-blade shutters are installed on a coaxial position.
- [c12] 12.The photolithography method of claim 11 wherein the step of adjusting size of the variable opening area comprises rotating the second triple-blade shutter to cause the blades of the first and second triple-blade shutters to at least partially overlap.
- [c13] 13.The photolithography method of claim 11 wherein the step of adjusting size of the variable opening area comprises utilizing a step motor to adjust relative positions of the first and second triple-blade shutters.